

July 2015

## Rooks County

### Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 9 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Rooks County economy.<sup>1</sup> These 9 sectors have a total direct output of approximately \$122 million and support 415.9 jobs in Rooks County. Running the model for all 9 sectors simultaneously produces the following results:

#### Agriculture Contribution in Rooks County

Impact Type <sup>2</sup>	Employment	% of Total Employment	Total Value Added <sup>3</sup>	% of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>	% of Gross Regional Product
Direct Effect	415.9	12%	\$34,641,349	17%	\$122,218,681	61%
Indirect Effect	283.1	8%	\$14,673,817	7%	\$24,273,481	12%
Induced Effect	75.6	2%	\$4,352,200	2%	\$8,058,536	4%
Total Effect	774.6	22%	\$53,667,366	27%	\$154,550,697	77%

As shown in the above table, agriculture, food, and food processing supports 774.6 jobs, or 22% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$155 million, roughly 77% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 9 agriculture, food, and food processing sectors is approximately \$54 million, or 27% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 27% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:  
[https://implan.com/index.php?option=com\\_content&view=category&id=19](https://implan.com/index.php?option=com_content&view=category&id=19)

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

<sup>4</sup> GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

<sup>5</sup> Output = Intermediate Inputs + Value Added

In the top ten by employment, Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming is the top employer in the agriculture industry with 180.4 employees. This table also shows the amount of jobs that are created by the agriculture industry in Rooks County.

#### Top 10 Industries Affected by Employment

Sector Description:	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming .....	180.4	\$51,947,909
Support activities for agriculture and forestry .....	174.2	\$9,299,569
Grain farming .....	127.7	\$49,702,435
All other crop farming.....	83.5	\$11,773,569
Wholesale trade.....	38.5	\$7,751,220
Securities and commodity contracts intermediation and brokerage .....	18.4	\$741,542
Truck transportation.....	16.0	\$2,449,109
Monetary authorities and depository credit intermediation .....	14.3	\$2,021,149
Veterinary services .....	8.0	\$491,800
Limited-service restaurants .....	7.1	\$336,196

The Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming industry directly contributes approximately \$52 million to Rooks County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

#### Top 10 Industries Affected by Output

Sector Description:	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming .....	180.4	\$51,947,909
Grain farming .....	127.7	\$49,702,435
All other crop farming.....	83.5	\$11,773,569
Support activities for agriculture and forestry .....	174.2	\$9,299,569
Wholesale trade.....	38.5	\$7,751,220
Oilseed farming .....	3.0	\$7,102,291
Truck transportation.....	16.0	\$2,449,109
Owner-occupied dwellings .....	0.0	\$2,255,904
Monetary authorities and depository credit intermediation .....	14.3	\$2,021,149
Maintenance and repair construction of nonresidential structures .....	5.2	\$808,424

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Rooks County's economy.

[illegible]

All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.